

FIG.1

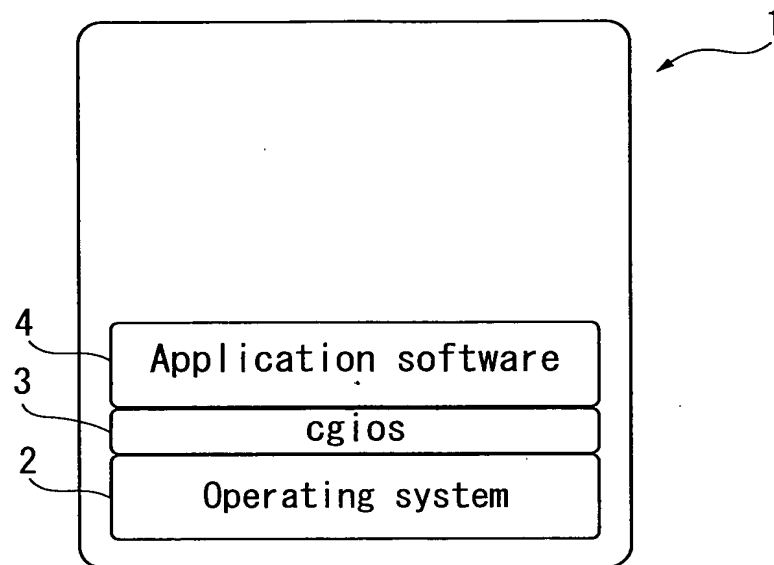


FIG.2

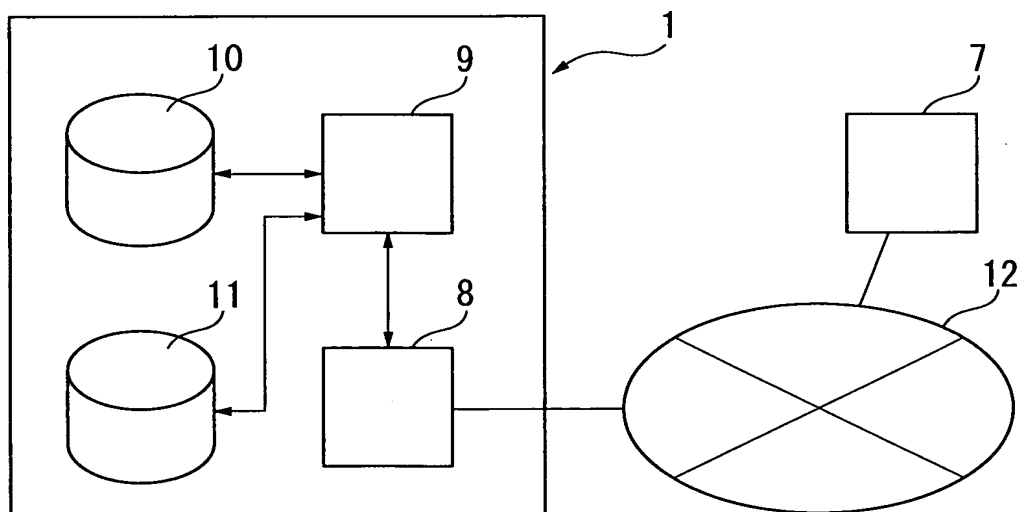
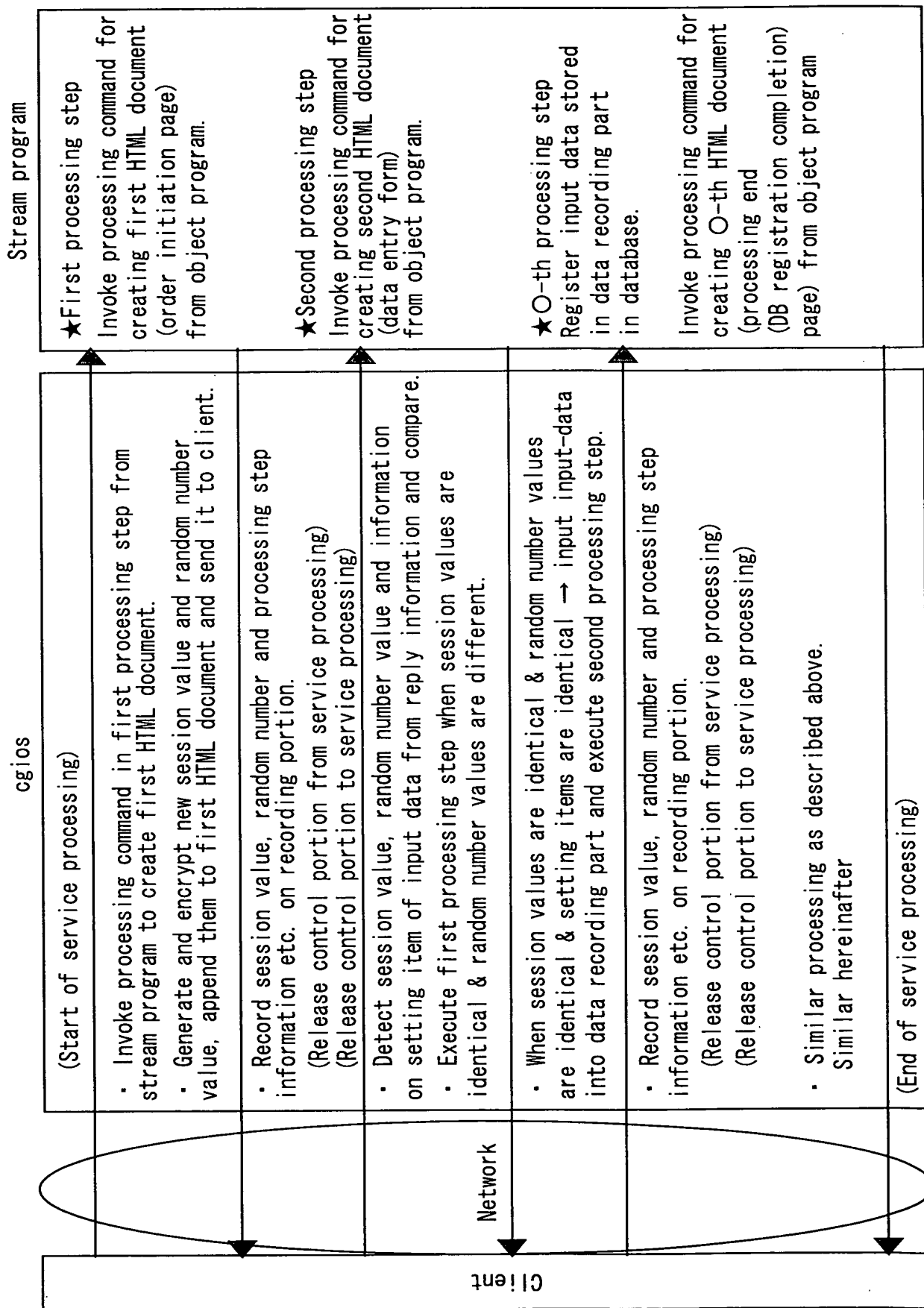


FIG.3



## FIG.4

```

ustream input_order($o) { # order entry stream
  top:
    $o = new <APP>::OysterOrder($S);
    $o->default;

  first:
    page(input_order.page) {
      $V->{SLOT} = { slot => $o->input };
    }
    if ($V->{action} eq "next") { goto second; }
    goto first;

  second:
    if ($o->{ERROR} = $o->check) { goto first; }
    page(print_order_conf.page) {
      $V->{SLOT} = { slot => $o->print };
    }
    if ($V->{action} eq "back") { goto first; }
    elsif ($V->{action} eq "next") { goto third; }
    goto second;

  third:
    $o->{orid} = $o->nextorid;
    $$S{DA}->saveObject($o);

  fourth:
    page(print_order_done.page) {
      $V->{SLOT} = { slot => $o->print };
    }
    if ($V->{action} eq "next") { goto first; }
    goto fourth;
}

```

## FIG.5

# Object that represents order of oyster dish. Detail of member variable is <MEMBER>.

package OysterOrder;

# Object that represents order of oyster dish

#BEGIN\_DECLARE

\$data = "orid int,	# Order ID	} p 1
brand int,	# Oyster's brand code	
recipe int,	# Recipe code	
trimming int,	# Seasoning code	
comment text,	# Comment regarding recipe	
primary key(orid)";		

\$seqs = "seq\_orid:orid:1,";

\$defo = "brand => OysterType, recipe => RecipeType, trimming => TrimmingType";

#END\_DECLARE

use strict;

```
sub new { # Constructor of oyster dish ordering object
    my($type,$$,%hash) = @_;
    my %h = ("S" => $$, "SELF" => "OysterOrder", %hash);
    return bless %h, "<APP>::OysterOrder";
}
```

p 2

```
sub nextorid { # Next ORID
    my($V) = @_; my $$ = $V->{S};
    my($orid) = $$${DA}->getrow("select nextval('seq_orid')");
    $orid;
}
```

p 3

```
sub default { # Set default value
    my($V) = @_; my $$ = $V->{S};
    $V->{brand} = 1; # Rock oyster
    $V->{recipe} = 1; # Eaten-raw
    $V->{trimming} = 2; # Lemon only
    $V->{comment} = "";
    delete $V->{orid};
}
```

p 4

## FIG.6

```

sub input { # Order entry form
    my($V) = @_; my $$ = $V->{S};
    print_webform( # Order entry form
'<table>
    <ifdef ERROR><span class=error><!ERROR></span></ifdef>
    <tr><td> Brand of oyster</td><td>
        <input type=select name=brand value=$brand choice=[OysterType]></td></tr>
    <tr><td> Recipe of oyster </td><td>
        <input type=select name=recipe value=$recipe choice=[RecipeType]></td></tr>
    <tr><td> Trimmed seasoning</td><td>
        <input type=TrimmingType name=trimming value=$trimming></td></tr>
    <tr><td> Comment</td><td>
        <input type=text name=comment value=$comment size=60></td></tr>
</table>');
}

```

p 5

```

sub check {
    my($V) = @_; my $$ = $V->{S};
    my $count = 0;
    my $value = $V->{trimming};
    while ($value>0) { $count += $value & 1; $value >>= 1; }
    my $error = "";
    if ($count >= 3) {
        $error = "<li> You can only attach up to two kinds of seasoning at once.";
    }
    $error;
}

```

p 6

```

sub print { # Fair copy of order in HTML format
    my($V) = @_; my $$ = $V->{S};
    print_webtext( # Fair copy of order in HTML format
'<table>
    <tr><td> Brand of oyster </td><td><%brand></td></tr>
    <tr><td> Recipe of oyster</td><td><%recipe></td></tr>
    <tr><td> Trimmed seasoning</td><td><%trimming></td></tr>
    <tr><td> Comment</td><td><%comment></td></tr>
</table>');
}

```

p 7

## FIG.7

(a) <Page for inputting order:/main/input\_order.page>

```
<h3> Please select brand of oyster and recipe</h3>
<#slot>
<br>
<input type=submit action="next" label=" NEXT ">
```

(b) <Page for confirming order:/main/print\_order\_conf.page>

```
<h3> Please confirm your order.</h3>
<#slot>
<br>
<input type=submit action="next" label=" ORDER EXECUTE">
<input type=submit action="back" label=" BACK">
```

(c) <Page for notifying that order is completed./main/print\_order\_done.page>

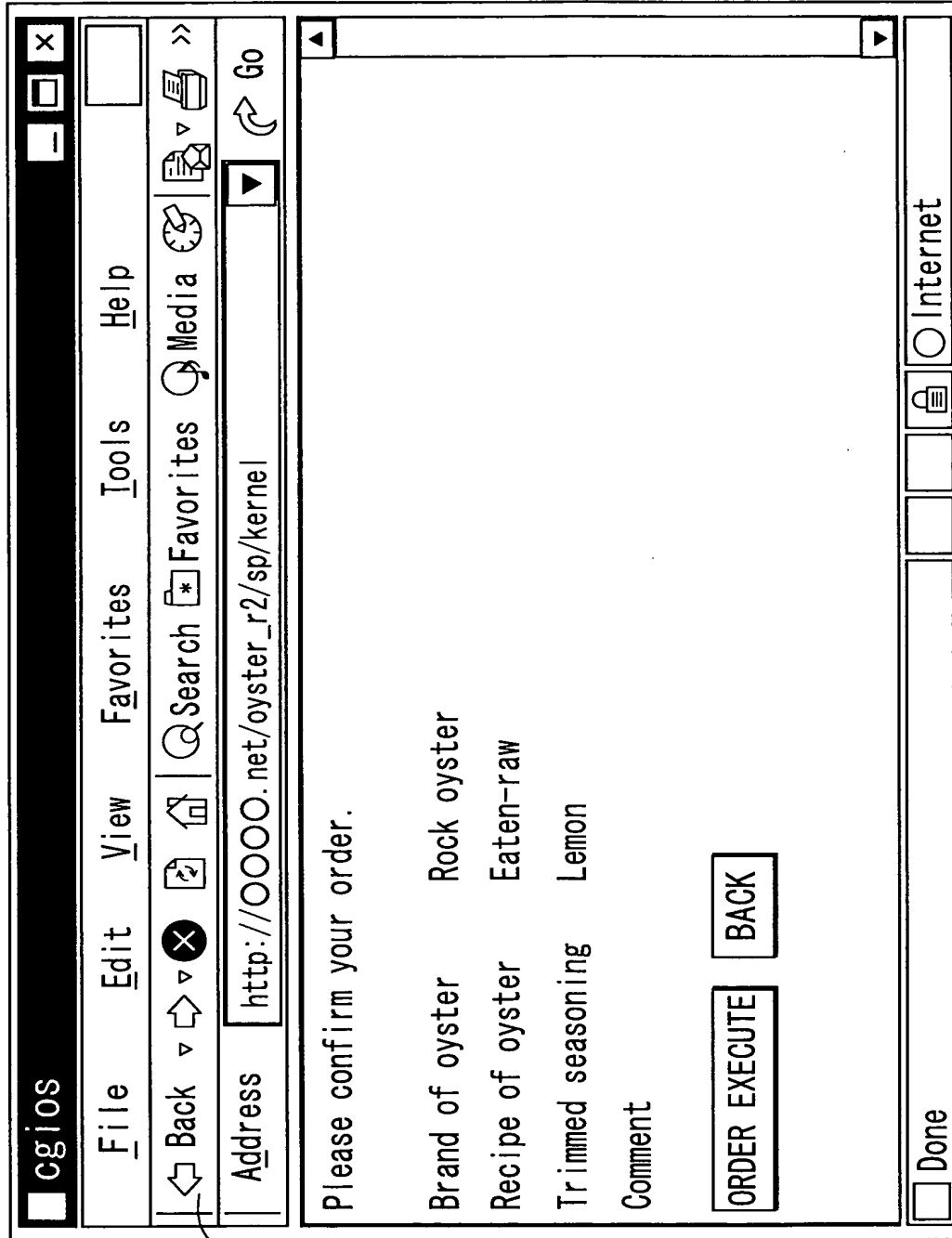
```
<h3> The following order has been accepted.</h3>
<#slot>
<br>
<input type=submit action="next" label=" BACK TO BEGINNING">
```







FIG.10



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FIG.11

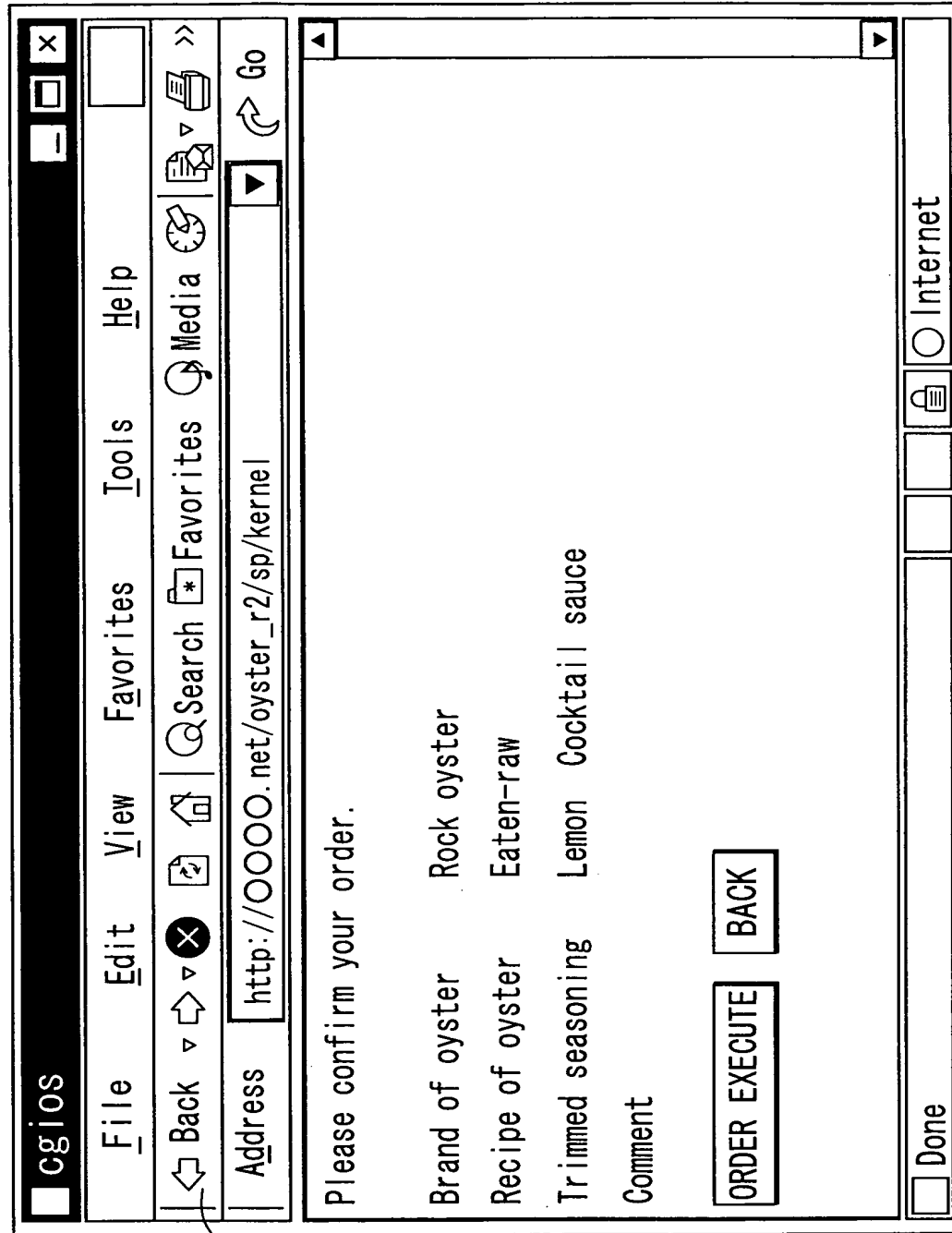


FIG.12

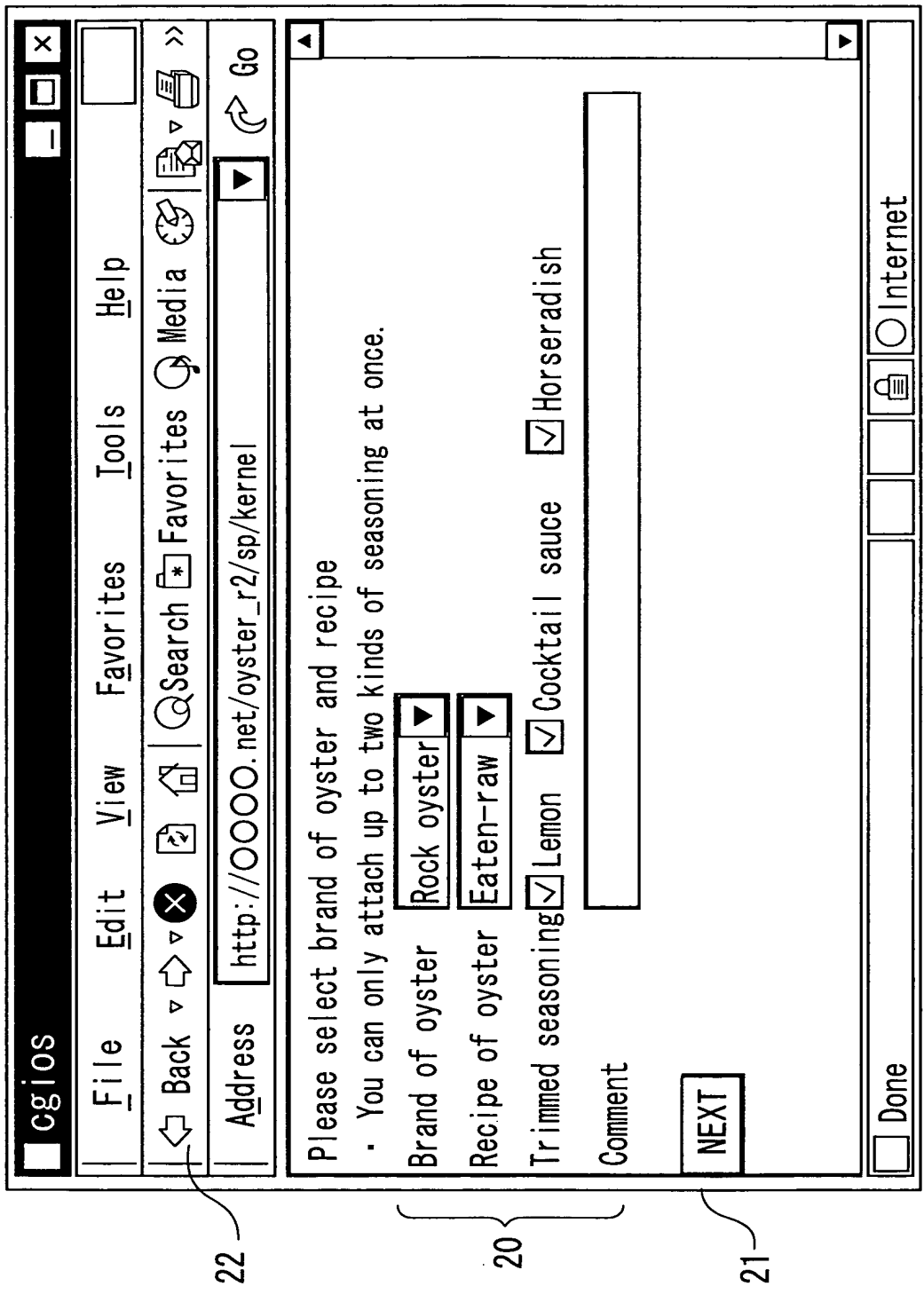


FIG.13

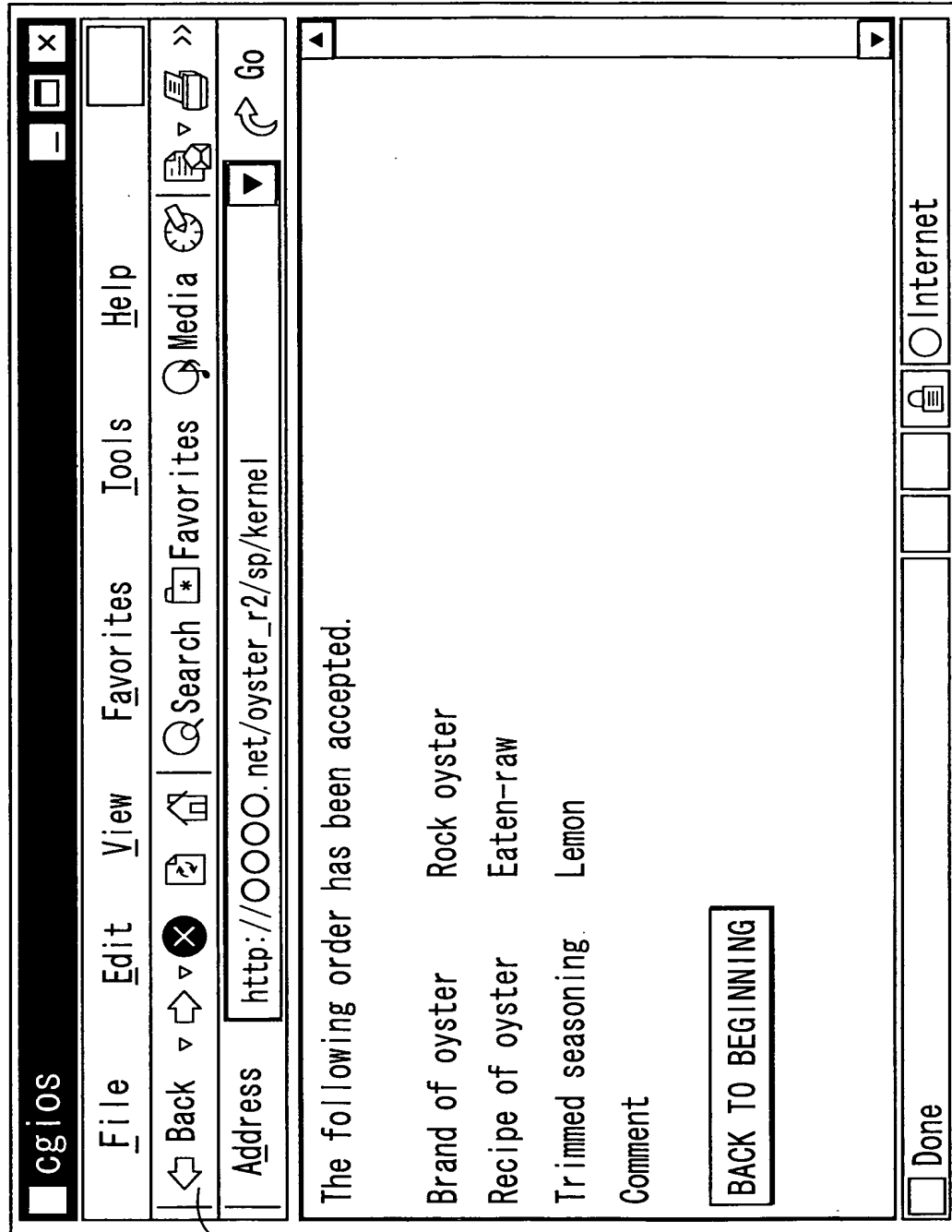


FIG. 14

cgios

File Edit View Favorites Tools Help

Back ▾ ↩ ⓧ Ⓜ Search \* Favorites Media >>

Address  Go

Please select brand of oyster and recipe

Brand of oyster

Recipe of oyster

Trimmed seasoning ☒ Lemon ☐ Cocktail sauce ☐ Horseradish

Comment

Brand of oyster

Recipe of oyster

Trimmed seasoning ☒ Lemon ☐ Cocktail sauce ☐ Horseradish

Comment

NEXT

☐ Done ☐ Internet

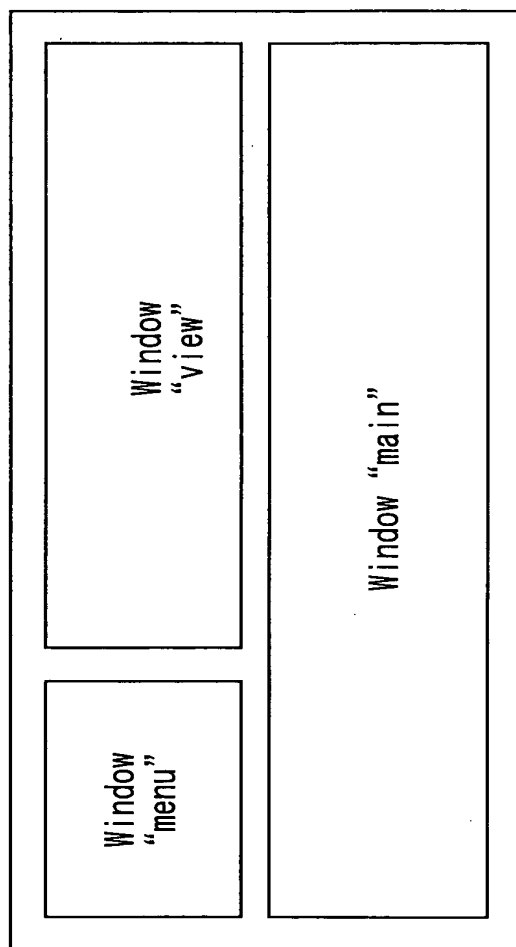
22

20

20

21

FIG.15



## FIG.16

(a) &lt;Activation stream:/init.stream&gt;

```

    ustream init() { # Activation stream
    loop:
        p_fork("Window stream","/main/init.stream","this");
        p_wait();
        goto loop;
    }

```

(b) &lt;Window activation stream:/main/init.stream&gt;

```

    ustream init() { # Window stream
    loop:
        p_setPage("top.page");
        p_fork("menu","menu.stream","menu");
        p_wait();
        goto loop;
    }

```

(c) &lt;Menu stream:/main/menu.stream&gt;

```

    ustream menu() { # Menu display stream
    first:
        page(menu.page) {
        }
        if ($V->{action} eq "input_order") {
            p_fork("INPUT ORDER","input_order.stream","^view");
        } elsif ($V->{action} eq "list") {
            p_fork("DISPLAY ORDERING LIST","list.stream","^main");
        }
        goto first;
    }
}

```

## FIG.17

(a) <Top frame (new addition):./main/top.page>

```

    <table width=100% height=100% bgcolor=#ffffff border=0 cellspacing=2
cellpadding=0 style='table-layout:fixed'>
    <tr>
    <td width=143 valign=top align=left class=wallpaper>
    <div style='overflow:auto'><#menu></div></td>
    <td valign=top class=wallpaper>
    <div style='overflow:auto'><#view></div></td>
    </tr>
    <tr>
    <td colspan=2 height=70% valign=top class=wallpaper>
    <div style='overflow:auto'><#main></div></td>
    </tr>
</table>

```

(b) <Menu page (new addition):./main/menu.page>

```

    <h3> Main menu </h3>
    <table><tr><td valign=top>
    <table class=inner bgcolor=#ffffff border-color=#000000 border=2
cellspacing=0 cellpadding=10>
    <tr><td valign=top>
    <li><a href='action:input_order'> INPUT ORDER</a>
    <li><a href='action:list'> DISPLAY ORDERING LIST</a>
    </td></tr>
    </table>
</td></tr></table>

```



FIG. 18

cgios

File Edit View Favorites Tools Help

Back ▾ ⌂ Search \* Favorites Media >>

Address http://OOOO.net/oyster\_r2/sp/kernel Go

Main menu

• INPUT ORDER

• DISPLAY ORDERING LIST

Please select brand of oyster and recipe

Brand of oyster

Recipe of oyster

Trimmed seasoning ☐ Lemon ☐ Cocktail sauce ☐ Horseradish

Comment

DISPLAY ORDERING LIST

Here is list of order situation

There is no relevant order

Internet

22

20

21

FIG. 19

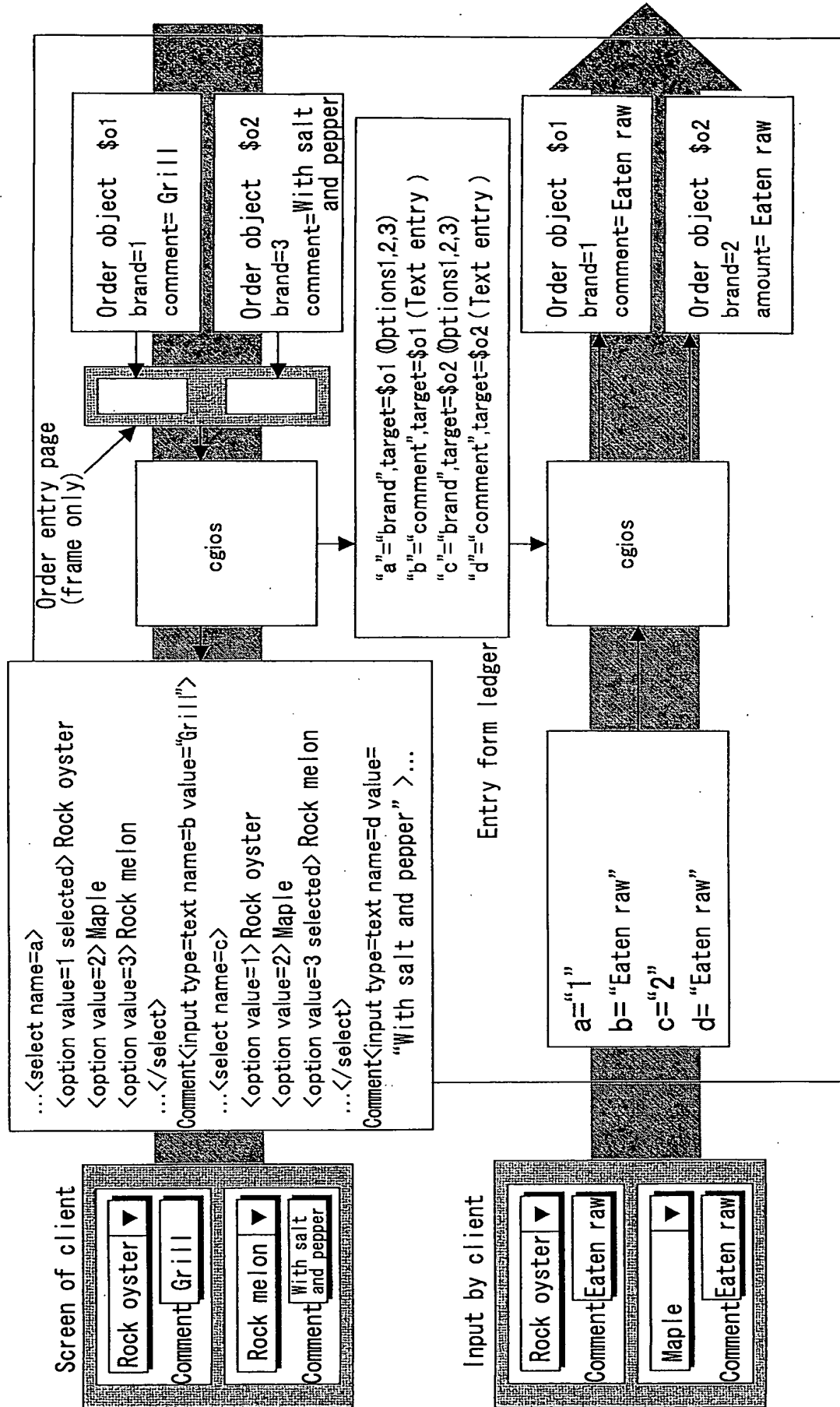


FIG. 20

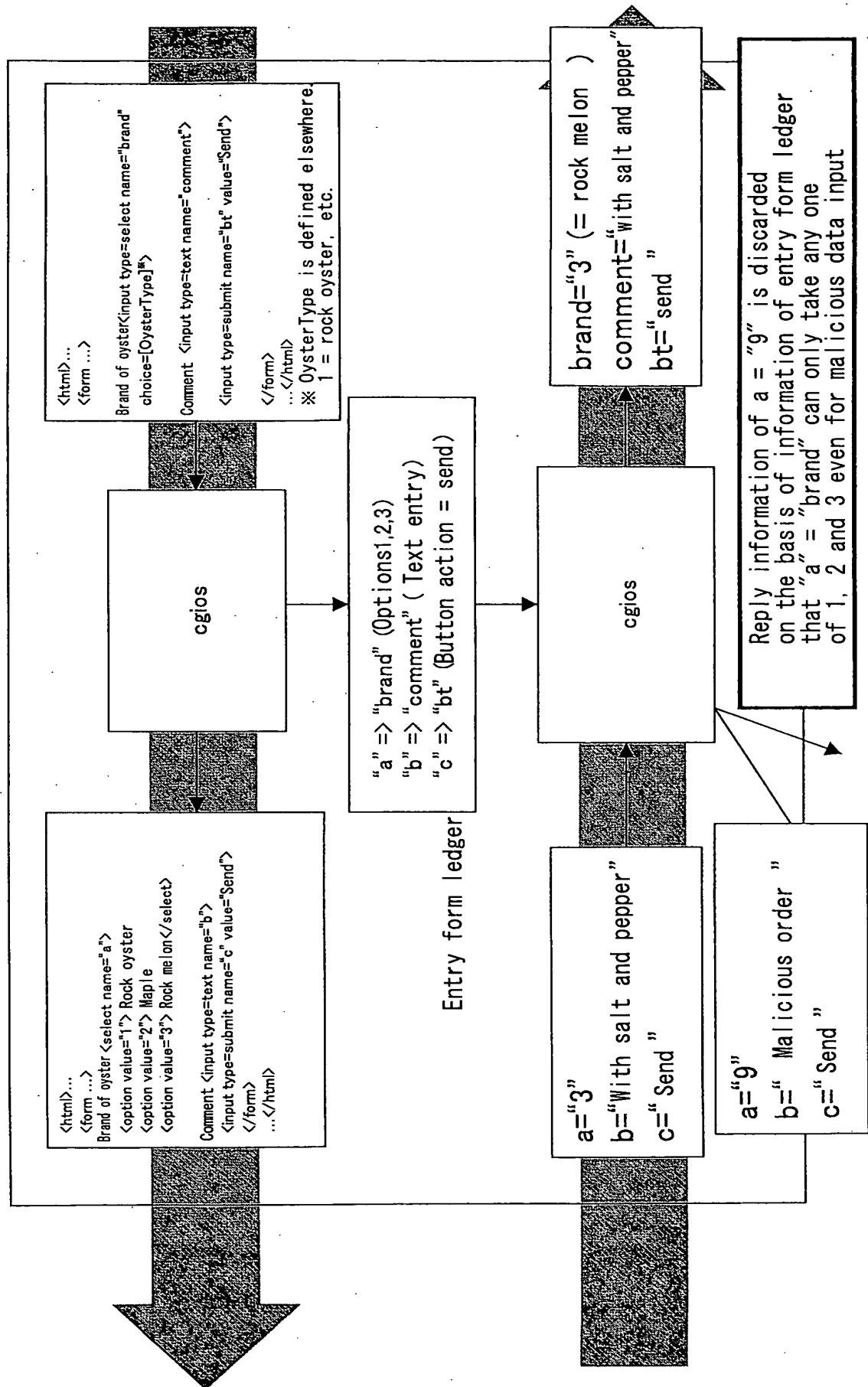


FIG. 21

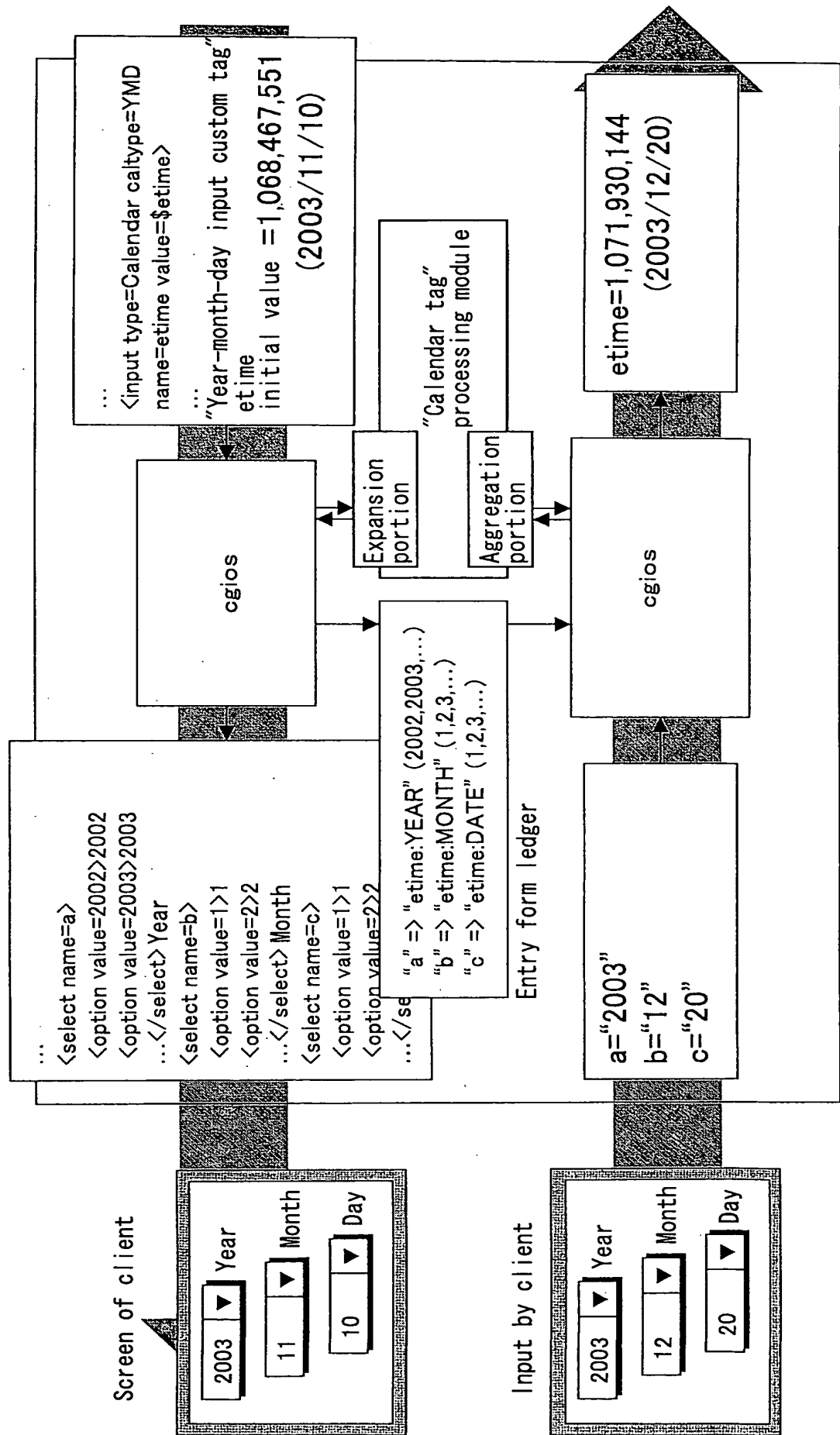


FIG. 22

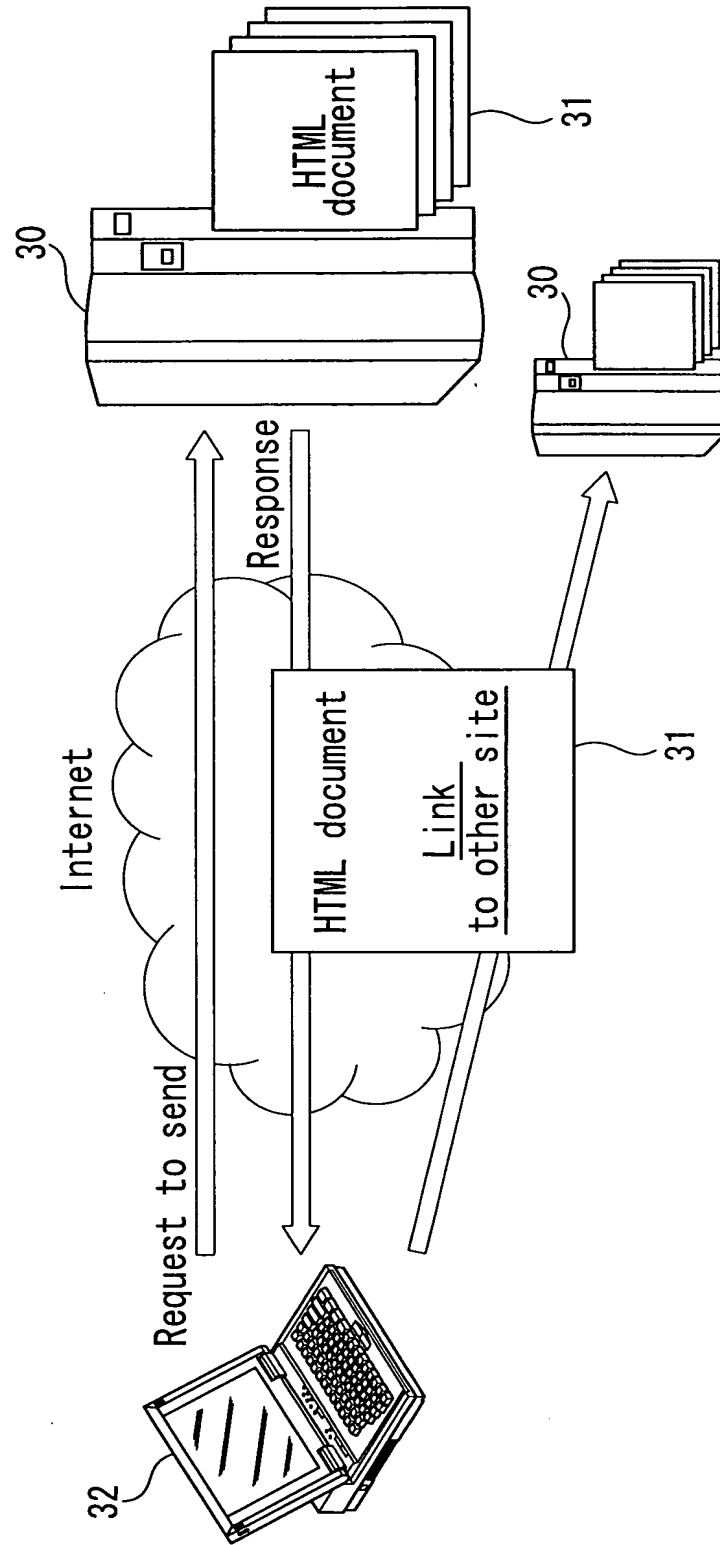


FIG. 23

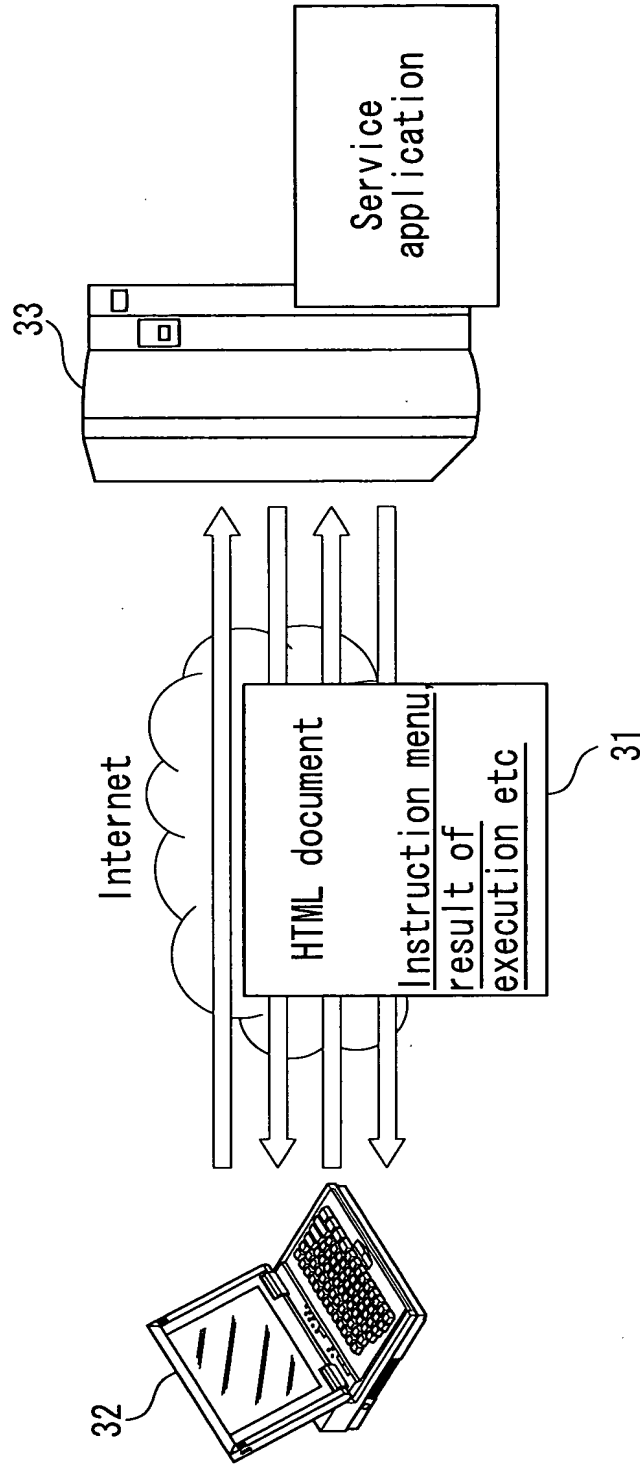


FIG. 24

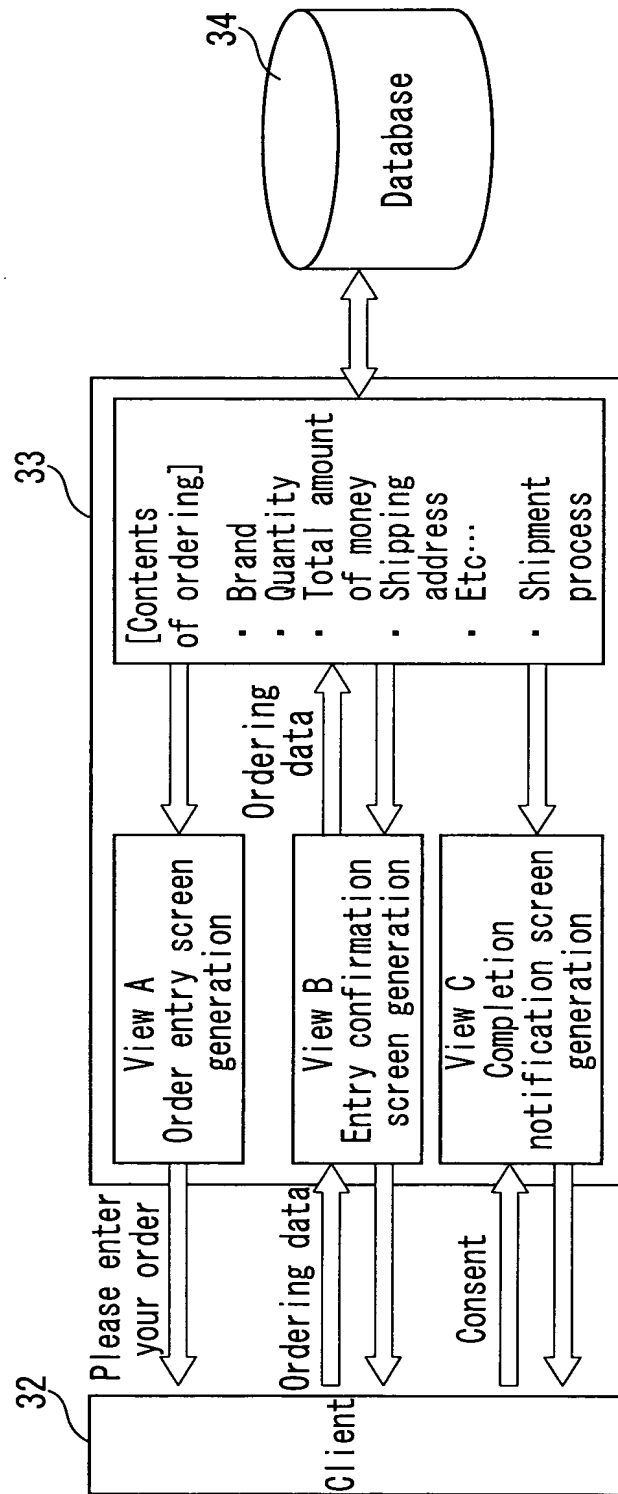


FIG. 25

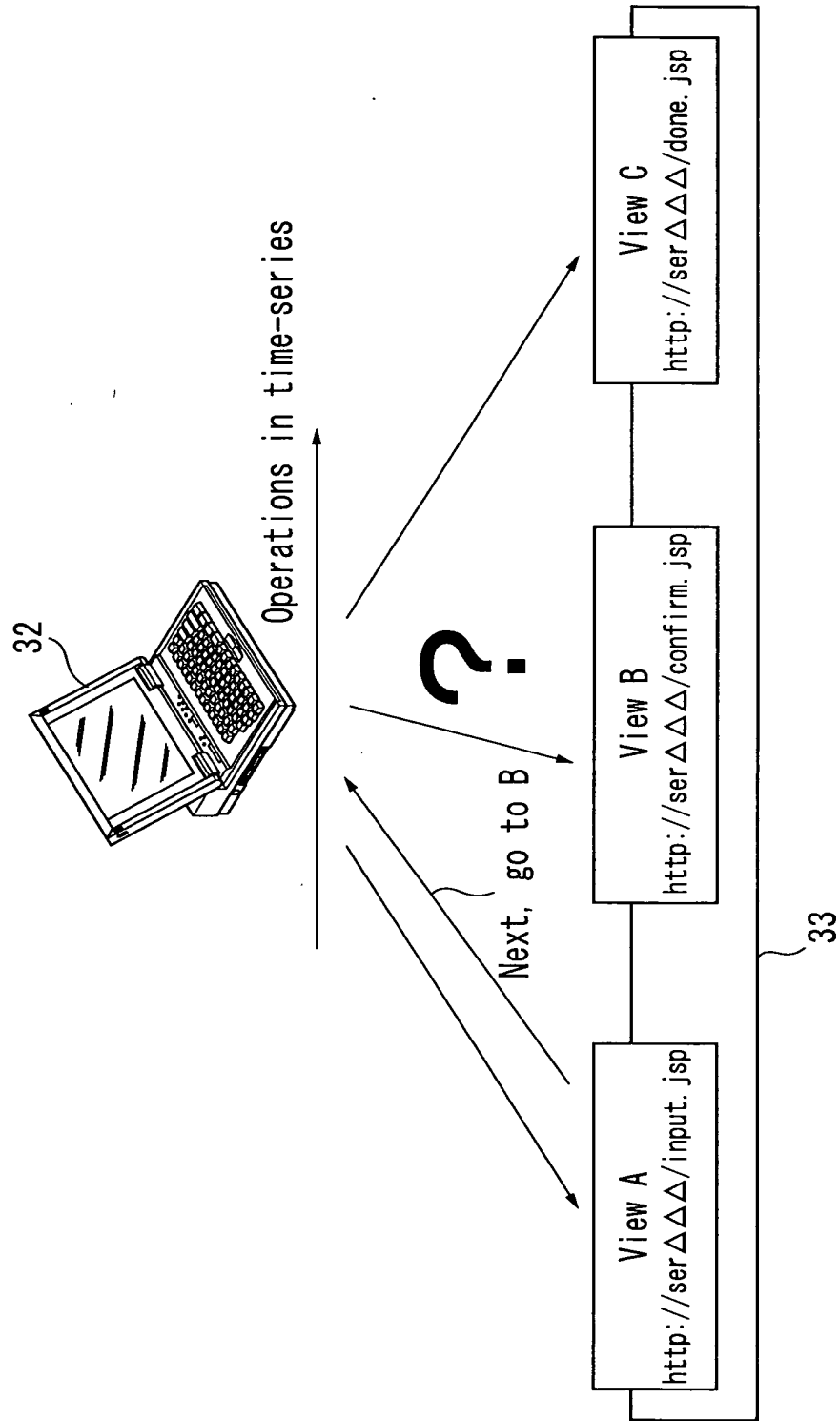




FIG. 26

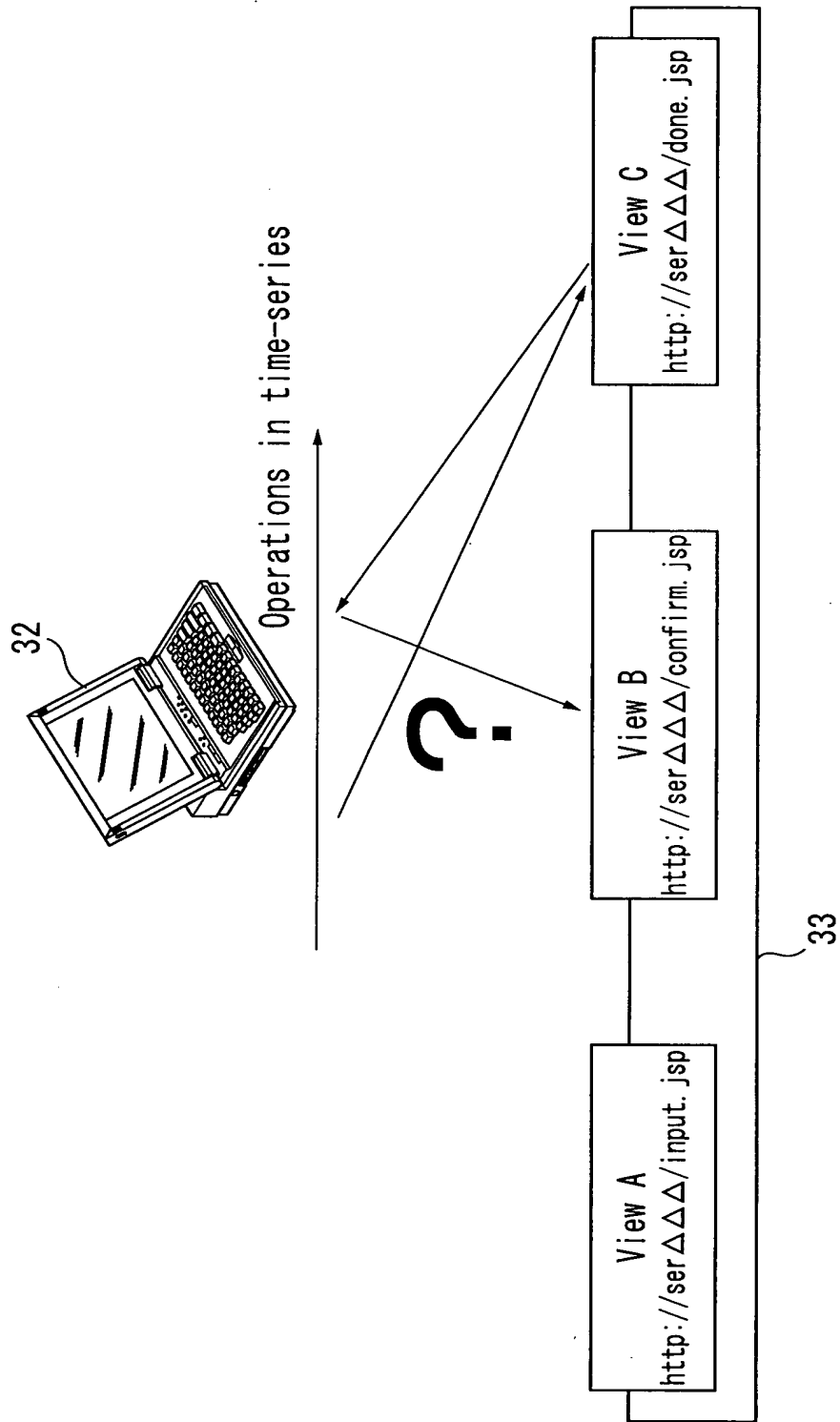


FIG. 27

